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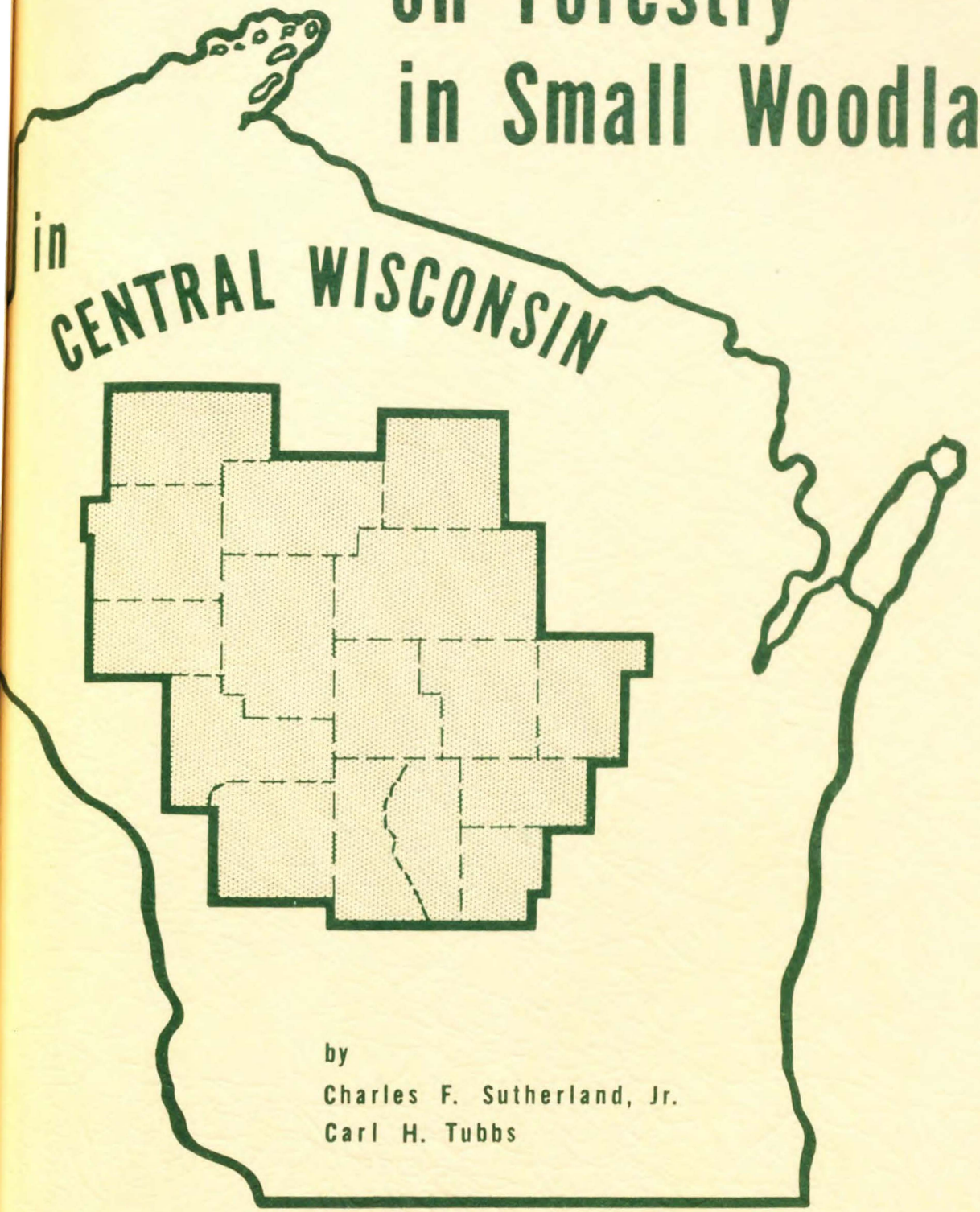
Influence of Ownership on Forestry in Small Woodlands in CENTRAL WISCONSIN



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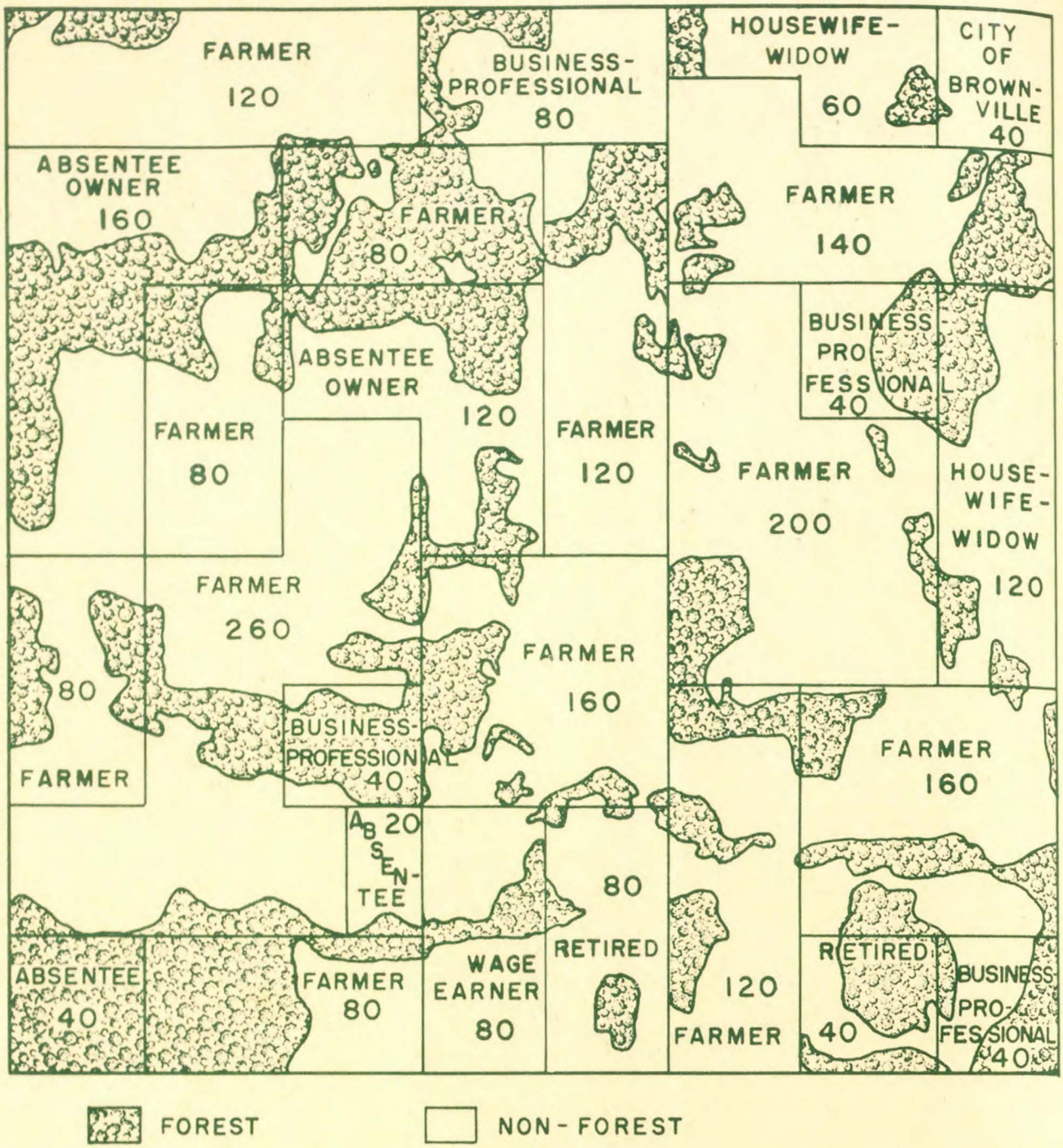

Forest land in central Wisconsin is widely distributed in small holdings owned by many different people, dissimilar in their reasons for owning forest land and their ways of treating it. The illustration is of an actual 4-square-mile block showing ownership boundaries, acreages, and the extent of forest on each parcel.

Summary of Results

The following paragraphs present, in condensed form, the results of 180 interviews with small private forest landowners in central Wisconsin during 1958.

1. Farmers and part-time farmers (most of them dairy farmers) form the largest occupation group of small forest landowners in central Wisconsin (61 percent). Wage earners follow with 26 percent. About 84 percent of the owners are over 40 years of age, 89 percent live within 10 miles of their forest land, and a large proportion (63 percent) have owned their forest land at least 10 years. Most of the woodland holdings are less than 50 acres in size.

2. Timber growing was cited by half the owners as being the primary use of forest land. Grazing is the primary forest use of 27 percent of the owners, and other uses such as recreation and residence make up the remainder.

3. Grazing of forest lands is prevalent. Some 58 percent of all owners used their forest lands to some extent for this purpose; however, 23 percent were grazing only lightly.

4. Some 66 percent of all owners and 85 percent of the farmers consider timber products for home use important.

5. Only 24 percent of the owners had sold timber from their forest tracts since they acquired them compared with the 64 percent who harvested timber--the difference being due to those who cut periodically for home-use purposes.

6. Few owners applied forest practices to their properties, few contacted professional foresters, and few took advantage of the cost-sharing plans for forestry available under the Agricultural Conservation Program. The reasons given for this lack of participation are many and various, and no one reason stands out.

7. Planting is the most popular forest practice, but most plantations are of small acreage. Half of those owners planting trees purchased them directly from the State nursery. Although most woodlands could benefit from forest improvement cuttings, only 3 percent of the owners had made them.

8. Little interest was expressed in forest credit, forest insurance, or the leasing of forest land to organizations for forest management purposes. These were new ideas to most owners. The need for credit is largely taken care of by using personal property as security. Most owners felt that their forest land was of too low value to insure or had never thought about forest insurance.

9. The average per-acre value of the forest land (including both timber stumpage and land value) held by 44 percent of the owners was less than $20; 28 percent had land with a per-acre value of between $20 and $39, and 25 percent had land valued at $40 or more.

10. Owner characteristics such as age, tenure, and method of acquisition were in some cases related to owner attitudes and practices, but in the majority of instances relationships could not be demonstrated. It is difficult to point out the most important characteristics since some are significant in some aspects and not in others. However, occupation has an influence on many owner attitudes and may well be the most important characteristic. Age has some influence, as does size of forest tract. Other characteristics have limited significance in the total picture.

11. The interviewers had the impression that although most owners knew of the various aids to forestry available to them, many were confused about such programs and were not fully aware of how foresters or programs could benefit them.

12. Although obstacles to improved forest management are present, the widespread use of home-use products and the equally widespread owner-harvests, coupled with the low farm incomes of the area, seem to provide a situation where the promotion of forestry practices could succeed.

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Influence of Ownership on Forestry in Small Woodlands in Central Wisconsin

by

Charles F. Sutherland, Jr., and Carl H. Tubbs[1/]

Introduction

The nationwide forest resource report "Timber Resources for America's Future" [2/] indicated that the productivity of all commercial forest lands needs to be built up to higher levels to meet future demand for timber products. In particular it focused attention on the low productivity of commercial forest land in small private ownerships.

In the Lake States more than 80 percent[3/] of the privately owned commercial forest land is in "small" private ownerships of from 3 to 5,000 acres.

How can forest productivity be improved on these lands? To aid in answering this question the Station, in 1958, undertook a survey in central Wisconsin of forest owners' attitudes and actions concerning forestry and the present programs, both government and private, designed to improve forestry practices on small private forest ownerships. The objectives of the study were to determine:

1. The characteristics of private owners and their attitudes toward their forest land.

2. Why landowners adopt or do not adopt specific forest practices, and why owners respond or do not respond to specific forestry programs.

1/ Mr. Sutherland, a Forest Economist at the Lake States Forest Experiment Station at the time this survey was made, is now on the forestry staff of Oregon State University. Mr. Tubbs is a Research Forester at the Lake States Station. The Station is maintained at St. Paul 1, Minn., by the Forest Service, U. S. Department of Agriculture, in cooperation with the University of Minnesota.

2/ U. S. Forest Service. Timber Resources for America's Future. Forest Resource Rpt. No. 14, 713 pp., illus. 1958.

3/ Ibid., p. 508, table 4.

The basic sampling unit in this study was a 4-square-mile block. Fifteen of these blocks were selected at random through central Wisconsin. Everyone in the blocks owning a tract of forest land of more than 3 acres and less than 5,000 acres was interviewed. In addition, the woodland of each of these owners was examined and mapped to help provide an estimate of the value of the timber. This produced 180 usable interviews. No multiple ownerships such as corporations or partnerships were included.

The Area

In the second Forest Survey of Wisconsin (1950-58) the State was separated into seven relatively homogeneous areas of eight or more counties each. The Central District (fig. 1) containing 13 counties was chosen for this initial Wisconsin ownership study.

The area is mostly one of light sandy soils which, although sometimes suitable for farming, are frequently droughty, low in fertility, or too wet. The northern tier of counties supports northern hardwoods and pine; the rest have largely oak and pine.

Figure 1.--Location of the study area in central Wisconsin.

In terms of area the oak type is dominant, comprising about 31 percent of the nearly 3 million acres of forested land in central Wisconsin.[4/] Much of this oak is relatively slow growing. Twenty-one percent of the area is aspen-birch. Unproductive brush areas account for 17 percent. Jack pine, the most widely found pine type, covers 10 percent. Northern hardwoods, a high-value type, appear on only 8 percent of the area.

The people of central Wisconsin depend primarily on dairy products for their livelihood. They either produce these products or work in the many plants that process them.

Incomes are low in the area. In 1950, 40 percent of the families in 10 of the 13 counties[5/] were making less than $2,000 per year. More specifically, incomes from farming, the key occupation in the area, are low compared to the State average. Sales of farm products per farm in 1954 averaged $4,048--about $1,100 less than for the average farm in Wisconsin.[6/]

The number of farms is decreasing, and in some areas there is a net population migration to other parts of the State or to other States.

4/ Wisconsin Conservation Department and Lake States Forest Experiment Station. Commercial forest land by type and size class. Wis. Conserv. Dept. Forest Inventory Pub. Nos. 1-9, 13-16. 1955. (See table 2.)

5/ U. S. Bureau of the Census. 1950 Census of the Population; Vol. II, Characteristics of the Population; Pt. 49, Wisconsin; Table 12.

6/ U. S. Bureau of the Census. 1954 Census of Agriculture; Vol. 1, Counties and State Economic Areas; Pt. 7, Wisconsin; County Table 4.

Characteristics of Forest Owners

The classification of forest owners within several categories is shown in table 1.

Over half (52 percent) of the owners were farmers, and another 9 percent were part-time farmers.[7/] Wage earners made up 26 percent; some of these were part-time farmers as well. The only other group of any size included people who had retired--8 percent. The map on the inside of the front cover illustrates the distribution by occupation classes and the size of forest holdings.

Approximately 84 percent of the owners were 40 or more years of age. Nearly one-third had reached or passed the 60-year mark.

Sixty-four percent lived on the tract containing their woodland, the residence in many instances being in or very near the woods. Only 11 percent lived 10 miles or more from the tract.

Eighty-four percent had held their forest land 5 or more years, 64 percent 10 or more years, and 21 percent at least 25 years.

Nearly two-thirds of the owners had forest holdings of less than 50 acres. Only 13 percent had woodlands of 100 acres or more.

About 67 percent of the owners had purchased their forest land from outside their family. The other 33 percent had either purchased from within their family, inherited their lands, or inherited part and purchased part of their forest land. Most forest lands in this area are acquired in conjunction with farm purchases.

7/ In this study, those with less than half their income coming from their farms were classed as part-time farmers.

Table 1.--Private owners of small forest tracts classified within several categories, central Wisconsin, 1958

Category	Percent of owners	Category	Percent of owners
OCCUPATION		AGE CLASS (years)	
Farmer	52	Less than 30	3
Business or profession	9	30 - 39	13
Wage earner	26	40 - 49	26
Housewife or widow	2	50 - 59	27
Retired	8	60 or more	31
Other	3		
		Total	100
Total	100		
		YEARS IN PRESENT OWNERSHIP	
DISTANCE FROM FOREST TRACT			
		Less than 5	16
Residence on tract	64	5 - 9	20
Less than 10 miles	25	10 - 24	43
10 - 29	3	25 or more	21
30 - 99	3		
100 - 199	3	Total	100
200 or more	2		
		SIZE OF HOLDING (acres)	
Total	100		
		3 - 49	64
		50 - 99	23
		100 - 499	13
		500 - 4,999	(1/)
		Total	100

1/ Less than 1 percent.

Use of Forest Land

Timber Growing and Grazing Are The Main Uses

"What do you use your forest land for?" the owners were asked. Despite the fact that productivity of commercial forest land in small private ownerships is generally low, half of them indicated timber growing as the primary intent of use. And this does not measure the full extent of this use since many owners also listed timber growing as a secondary use. Most of these owners probably intend the timber for home-use products although combinations of sale and home consumption are not unusual. Grazing, a primary use by 27 percent of the owners, is often combined with timber growing.

Farmers use woodlands more for timber growing than other major occupational groups. Other groups are more likely to be interested in values of the forest connected with recreation and residence and are also less interested in home-use products, as shown in the following tabulation of primary uses.

Occupation	Timber growing	Grazing	Other	Total
	------ Percent owners ------			
Farmer	58	31	11	100
Wage earner	35	20	45	100
Other	45	25	30	100
Total	49	27	24	100

The vast majority of woodland earmarked for timber growing has seen little application of principles of forestry, most owners being content to treat woodland in traditional ways.

Secondary Uses of the Woodlot Are Rather Widespread

About half of the owners utilize the woodlot in more than one way.

Occupation	More than one use	One use	Total
	----- Percent owners -----		
Farmer	57	43	100
Wage earner	33	67	100
Business and professional	38	62	100
Retired	54	46	100
Total	49	51	100

In some instances these uses are conflicting--as in cases involving both timber growing and grazing. In any event, secondary uses probably tend to complicate attempts to bring woodlots under forest management.

Some 57 percent of the farmers have more than one use of forest land contrasted with other occupations which tend to have only one use. Probably farmers are the most concerned with combinations of timber growing and grazing.

Home-Use Products Are Important, Especially to Farmers

Some 66 percent of the forest owners said that home use of forest products was important to them. Eighty-five percent of the farmers, 60 percent of the retired persons, and 41 percent of wage earners fall in this category. These figures are partially substantiated by those reported for central Wisconsin farms by the U. S. Bureau of the Census in 1954.[8/]

8/ U. S. Bureau of the Census. 1954 Census of Agriculture; Vol. 1, Counties and State Economic Areas; Part 7, Wisconsin; County Table 8.

Only One-Fourth of the Owners Have Sold Timber

Only 24 percent of the owners had ever sold timber from their land contrasted with the 64 percent who had harvested timber, the difference being due to those who cut for home-use purposes. Generally, cuttings for fuel and fence posts are made every 2 to 3 years, while cuttings for lumber are less frequent.

Although no data were collected, observation indicated some of the reasons for the low percent of commercial harvests. Many farmers do not like the large accumulations of slash left by loggers, as the slash represents a possible danger to livestock and waste of fuelwood. Also, many do not like the looks of a woodlot after a commercial cut. Some owners consider woodlands as insurance against financial setbacks and, as a result, delay harvesting. Still others feel that they have only enough timber for their own needs; poor markets in some areas, small acreages, and low per-acre volumes are also factors.

Some owners use written contracts when selling timber (35 percent). Most sold on a basis of scale of cut logs and bolts. Lump sum sales accounted for only 23 percent of the commercial harvests.

Some 87 percent of the owners who had harvested timber had done so in the last 5 years (1954-58), and 75 percent of those selling timber had done so in the last 4 years. Since owners utilizing woodlots for home use usually harvest frequently, the high percentage of cutting in the last 5 years is not surprising.

One might suppose that purchasers of forest land or farms including forest land would sell timber to defray part of land purchase costs, and that this factor might explain the distribution of sales. However, a comparison of tenure classes and the date of the last sale shows that all tenure classes were equally active in selling timber in the past 4 years.

Methods of buying and selling farmland have apparently been a factor in overcutting of farm woodlands in some parts of the study area. Farmland is frequently sold in parcels (i.e., the house and barn form a parcel, cropland forms another, woodland is another, etc.). Buyers of farms often find they do not have the capital to outbid loggers and jobbers bidding for the forest parcel, which may result in the woodlot being stripped of all merchantable growing stock before becoming the buyer's property (fig. 2). Also, some farmers mentioned that the timber had been harvested by the former owner just prior to the sale of the farm.

Figure 2.--A logged-over area where all merchantable timber has been cut.

Over half of the Owners Permit Some Grazing

Livestock graze on the forest land of 58 percent of the owners. However, close to half of these (23 percent) permit only light grazing.[9/] Woodlands of about 50 percent of the farmers are grazed heavily (fig. 3). Only 20 percent of owners in other occupational groups permit destructive grazing; many of these own farms that include forest land.

Occupation class	Heavy grazing	Light grazing	No grazing	Total
	Percent of owners			
Farmers	50	28	22	100
Other	20	18	62	100
All owners	35	23	42	100

9/ Definitions of "heavy" and "light" grazing are as follows: Heavy--Volume of grass and other herbaceous vegetation utilized is more than 25 percent as a whole; considerable area closely utilized; seedlings of tree species browsed, especially hardwoods. Light--Volume of herbaceous vegetation utilized is less than 25 percent as a whole; foliage of tree species not browsed appreciably.

Figure 3.--Typical overgrazed woodlot resulting in low-quality trees and providing poor grazing.

A number of farmers stated that grazing was detrimental to woodlots but that fencing would be too expensive. Most important, however, may be the area of good pasture available for cattle. When good pasture is lacking cattle are more prone to utilize woodlands.

Few Owner Characteristics Show Relation to Intent of Forest Land Use

Characteristics such as age of owner, length of tenure, and distance from owner's residence to his forest land were considered in relation to intent of use of forest land. Most factors had no significance, but a few correlations did appear.

1. Persons acquiring forest land at less than the market price (purchase from family, inheritance, and combinations of purchase and inheritance were assumed to be purchases at less than the market price) seem to be more interested in timber growing than do those who pay the full market price, although the percent of owners grazing woodlands is the same for both.

   When method of acquisition is further broken down by occupation classes we find that it apparently has little effect on intent of use of the forest land owned by farmers. On the other hand, wage earners who purchase at less than the market price tend to be more interested in timber growing than are those purchasing at the full market price. Only 23 percent of the wage earners purchasing at full price were "timber growers," while nearly 60 percent of those obtaining woodland at less than the full price were primarily interested in growing timber.

2. The size of the forest holding may influence some owners to grow timber. Owners having forests of over 100 acres consider timber growing as the intent of use more often than do those having less than 100 acres.

3. Tenure has a distinct relation with home use. Of those owning forest tracts more than 25 years, 78 percent make use of the woodlot for home-use products. This percentage declines as length of tenure decreases until 48 percent of those owning woodland for less than 5 years utilize home-use products. However, correlations of timber growing and tenure exhibit little statistical significance.

4. As might be expected, those persons living over 10 miles from their forest land show little interest in grazing, home use, or in more than one use. But distance of residence from the woodland has little influence on intentions to grow timber.

Financial Aspects of Forest Ownership

Timberland Values are Low

The forest land of nearly three-fourths of the owners was valued at less than $40 per acre. The breakdown is as follows:

Average per-acre dollar value for forest holdings[1/]	Percent of owners
0 - 19	44
20 - 39	28
40 - 59	9
60 - 79	6
80 and up	13
	100

1/ Both land and timber values are included.

This is not surprising since Forest Survey figures show that small private holdings have generally poorer stocking than other ownerships. However, it should be pointed out that a number of owners had some high-value timber.

No association was apparent when value was compared to owner characteristics such as age, tenure, and method of purchase.

It would be easy to relate these low values and the general lack of forestry in this area. However, this conclusion should be made with caution since it is possible that factors other than value are more important.

Few Owners Apply For Forest Loans

Only 4 out of 180 people had tried to borrow money on their forest land and timber. None of these were farmers, yet farmers are frequent bank creditors. The four owners who desired to borrow money on their forest land did not intend to use the money for a forestry purpose.

Owners not borrowing on their forest land listed "credit not needed" most often (35 percent) as their reason for not borrowing. A number of people (17 percent) said that credit was easier to obtain on personal property. This was especially true of farmers. They said that a tractor, truck, or cow was more readily accepted by the bank for collateral.

Of the owner characteristics, occupation was the only one that appeared to be related to the reasons given for not borrowing. Farmers gave the answer "credit not needed" less frequently than nonfarmers. But as indicated before, not one farmer had attempted to use his forest land as collateral for a loan.

Little Interest is Shown Toward Forest Insurance

Only 1 person out of 180 had tried to insure his timber; this was in connection with an application for a loan. Most of those interviewed had either never thought of insuring, or believed that the low value of their timber precluded insuring it.

Leasing for Forest Management, a New Idea to Most, Provokes Little Interest

No one interviewed in the study had leased his forest land to someone else for forest management. Of those interviewed, 8 percent exhibited some interest in having their forest properties managed for them under a long-term lease. Most of these were very vague about terms but, in general, wanted to be assured that they could make more money under a lease than under their own management. Absentee owners were not eager to have their forest land managed for them. Leasing arrangements for forest management in the study area are nonexistent at present.

Forestry Practices

Three-fourths of the owners had applied no forestry practices on any of their holdings. Forestry practices that were applied consisted almost entirely of tree planting. In spite of the opportunity for stand improvement on most of the woodland in this area, only 3 percent of the forest owners had done any timber stand improvement (fig. 4).

Forestry practices applied	Number of owners	Percent of all owners
Planting 1/	41	23
Timber stand improvement	5	3
Regeneration cutting	2	1
Fencing out stock	1	(2/)
Other	2	1
No practices	129	72
Total	180	100

1/ Excludes those owners having FFA or 4-H plantings.
2/ Less than 1 percent.

This distribution of practices is understandable in view of the widespread publicity about tree planting, contrasted to other forest practices which receive less publicity. In fact, when asked about forest practices some owners replied that they were unable to plant trees. To them, forestry meant tree planting and nothing more.

Figure 4.--Cutting defective trees to improve the stand. Only an insignificant proportion of central Wisconsin forestland owners have done timber stand improvement work.

Use of Forestry Programs

Owners were questioned about three forestry programs: tree planting, the Agricultural Conservation Program (ACP), and professional forestry services.

As was expected, few owners were taking part in the programs. A listing of those entered in the 1957 ACP program, for example, showed only about 2 percent of the wooded farms participating in timber stand improvement and 3 percent of all farms planting trees. One encouraging sign, however, was in the increase of participation from 1956 to 1957. The number of farms doing timber stand improvement work under ACP increased 74 percent in central Wisconsin, and tree planting jumped 21 percent. Both of these increases were considerably more than the State averages.

This section is a discussion of the reasons owners gave for not being concerned with forestry programs and the relationships between these reasons and owners' characteristics.

Tree Planting the Most Popular Forest Practice

There are several sources of forest-tree planting stock and several programs which encourage tree planting. Sources of planting stock are the State tree nurseries (partly supported by Federal funds), forest industry nurseries, and commercial nurseries.

Programs through which trees may be obtained are the Agricultural Conservation Program (ACP), Soil Bank, Future Farmers of America (FFA), 4-H Clubs, and forest industry through such organizations as Trees for Tomorrow. Briefly, the ACP pays part of the costs of tree planting for shelterbelt or forestry purposes. The Soil Bank performs much the same function but only for trees planted on farmland withdrawn from production. The 4-H and FFA are organizations with programs directed primarily toward farm youth.

Most owners did not plant trees.--Owners were asked if they had planted trees on any of their holdings, under what program they secured them, and if they did not plant, why not. Only 52 people in the sample (29 percent) had planted trees; this included 11 people in the 4-H or FFA programs, most of whom planted 1 acre or less.

Those who owned more than 50 acres of forest land were more inclined to plant trees. Except for size of holding none of the characteristics of ownership seemed to have much relation to planting.

Most trees are obtained from State nurseries.--The interviewers had some difficulty in separating the source from which the planting stock was obtained and the program under which it was purchased. However, in this sample only 4 percent of the owners purchased their trees from commercial nurseries; most of the rest bought trees direct from the State nurseries. A few owners transplanted wild trees to their plantation.

Some of the owners purchased trees from the State nurseries that were furnished through the Soil Bank (4 percent) or ACP (6 percent) or other programs. Others came from the nursery to the owner through the county forester or county agent (50 percent). Some of the owners were confused about how they had received their trees. They were not certain about which program they had subscribed to or from what nurseries their trees were purchased.

Why hadn't he planted? To this important question no one indicated that the terms of the present programs were unsatisfactory. The largest group (35 percent) of the respondents said they had no land that they wanted to plant. Although farmers have land that may be more suited to forestry than agricultural uses the need for pasture or cropland seemed pressing to most.

The next largest group (25 percent) replied that they lacked the time to plant. About 5 percent were unsympathetic to public aid programs in general, and only 4 percent said that they didn't realize that there were such programs.

Among the owner characteristics, occupation was the only one having a bearing on the answers given. Farmers had less land that they wanted to plant and lacked time more often than nonfarmers.

Occupation	Lack of plantable area	Lack of time	Other	Total
Farmer	49	28	23	100
Other	19	22	49	100
Total	35	25	40	100

Participation in the Agricultural Conservation Program

Under the Agricultural Conservation Program the Federal Government pays a share of the costs of applying conservation practices and provides technical advice and services. Two sections of the program are devoted to forestry--tree planting and forest improvement. Forest improvement ordinarily includes thinning, sanitation cutting, pruning, release, and site preparation for natural reseeding. Improved stands must be protected from fire and grazing.

In this sample of 180 woodland owners only one person, a farmer, had taken advantage of the payments for improving a stand of trees. Eight percent of the owners had planted trees under the program, making a total of approximately 9 percent participation since the ACP program was instituted.

Only 4 of the 14 participants were farmers; the others were mainly wage earners or business-professionals.

The largest number of forest owners who did not obtain payments said they were not interested in forestry (24 percent). Seventeen percent didn't know about the payments for forestry practices, and 16 percent indicated that they did not have time to plant, thin, or prune. Only 6 percent of the owners replied that there was too much red tape in the program or that they were basically opposed to subsidy programs. Among the reasons given by the remaining 37 percent were: not enough timber or forest land to make the payments worth while, and reluctance to fence--a prerequisite for both planting and timber stand improvement.

Interpretation of these responses is difficult because of the vagueness pervading most of the answers. However, some associations between owner characteristics and answers are apparent. In most instances, the characteristics seemed to be linked to answers relating to a lack of interest in forestry. It should be pointed out that these relationships, while statistically significant, indicate only part of the possible reasons for disinterest in forestry.

1. When occupations were grouped into two classes, farmers and nonfarmers, farmers gave significantly different reasons for not adopting ACP forestry practices. Only 18 percent of the farmers gave the answer "not interested in forestry" compared to the 30 percent in other groups. Farmers were also somewhat more well informed about the program.

2. More owners purchasing at the market price were disinterested in forestry those purchasing at less than the full price. On the other hand, time was a more important factor to the latter. Only 8 percent of those purchasing at the market price cited "lack of time" as a reason, whereas over 30 percent of those purchasing at less than the full market price gave this reason.

3. Length of tenure is directly related to disinterest in forestry. The percentage of owners disinterested increases from 18 percent for those with a tenure of less than 5 years to about 40 percent for those owning their land 25 years or more.

4. Lack of interest is the primary reason given by owners older than 50 years (33 percent), while only 12 percent of the younger owners gave this as a reason. These latter owners had a greater proportion of replies falling in the miscellaneous category.

Use of Professional Services

Most owners had not availed themselves of foresters' services (91 percent). County foresters,[10/] the most readily available in the area, were called on by 8 percent of the owners, and occasionally other technicians such as Soil Conservation Service men, agricultural teachers, and county agents were asked for aid. Contacts made by industrial and consulting foresters, if any, did not show in the sample.

Almost all owners using foresters were satisfied with their services and would use them again if the need arose. Also, most people having experience with foresters thought they would be willing to pay foresters a token sum for services rendered.

Asked why foresters were not used, owners gave many reasons. One of the most frequent replies was lack of interest in forestry. Farmers, however, evidently do not feel this lack of interest as much as do other occupational groups. The breakdown is as follows:

Occupation	Percent owners not interested in forestry
Farmer	22
Part-time farmer	38
Wage earner	48
Business and professional	50
Retired and other	52
Average	36

Low timber values and small acreages were evidently factors in disinterest in many cases. This is partly borne out by comparing the answer "not interested in forestry" with the size of forest holding. Only 20 percent of the owners of holdings larger than 50 acres had indicated lack of interest as a reason for nonparticipation, while over 40 percent of those holding smaller acreages gave this as a reason.

10/ "County foresters" in Wisconsin are State foresters and also perform the Cooperative Forest Management foresters' duties.

Some farmers felt that they were familiar enough with the principles of forestry to make advice from professionals unnecessary. About 18 percent of the farmers fell in this category, while only 7 percent of the other groups judged themselves able to perform the forester's functions. A number of owners did not understand how foresters could benefit them or, along the same lines, did not feel that there was a need for them. A few owners felt that advice gained from agricultural technicians was adequate.

Evidently age has some relationship with lack of interest in forestry. About 30 percent of the owners less than 40 years old indicated a disinterest in forestry as a reason for not seeking a forester's advice. The percentage drops slightly in the 40-49 age group and then climbs to 46 percent of those 60 or more years old.

Discussion

Small private forest ownerships are important in supplying wood to the nation's consumers. The productivity of small ownerships is generally low, and more of the potential production of these ownerships must be realized to meet the needs of our increasing population.

Definite conclusions from this exploratory study of owners in central Wisconsin are difficult. However, the results provide some insight into the aspects of small forest ownerships which might well be considered in attempting to encourage forest practices in this area.

Farmers comprised the largest group in the area and often responded differently from other occupation groups to questions about forest land use and forestry programs. A higher proportion of farmers consider timber growing a primary use of forest land. On the other hand, the fact that many combine grazing with timber growing complicates attempts to introduce forest practice to farm woodlots.

Most of the farmers found home-use products important to them and harvested such products frequently. This not only provides a possible use for products of stand improvement and thinning but also shows some knowledge of woods work, the lack of which is often an obstacle to farm forestry.

This is not to say that farmers are necessarily the group most likely to respond to forestry promotions. Fewer ownerships in other occupational groups had grazed forest lands and many considered timber growing a primary objective of ownership. Also, about half of the owners in these "other" groups considered home-use important to them.

There are indications that size of tract is related to the objective of timber growing. A higher proportion of owners who held over 100 wooded acres stated this as an objective than did those holding lesser acreages. Even though the larger holdings present a better opportunity for intensive forestry, at least from the standpoint of conflicting land uses, half of the owners of holdings under 100 acres consider timber growing as the primary use.

The low average values of most holdings, the preponderance of owners in older age groups, and the relative shortness of some tenures may also prove detrimental to the adoption of forest practices although the relationships of these factors with land use could not be demonstrated.

Few owners had sold timber during the time they had owned the land. Since all tenure classes were equally active in selling during the last 4-year period, apparently the practice of selling timber to defray the cost of purchasing land is not particularly widespread. However, some farmers said the timber had been removed just prior to their purchase of the farm.

Although there is a widespread opportunity for stand improvement, only a few owners had undertaken this practice. Most forestry was confined to tree planting, and many owners thought of forestry only in terms of planting. This is understandable in view of the publicity given to tree planting.

However, the majority of owners had not planted trees. The reasons most frequently given for not planting were lack of plantable land and lack of time. These reasons also may account for the small size of most plantations. Many farmers in this area have only "odd corners" that they feel are suitable for trees and do not wish to take crop or pastureland from farm production. Few of the owners mentioned existing woodlots as possible planting sites.

It is significant that only 6 percent of the owners who planted trees received a share of the planting cost through ACP.

Few owners had received a forester's help or had participated in ACP; lack of interest in forestry was the reason most frequently given. This reason was not particularly associated with farmers. Those owners in the older age groups and those who had held woodlands for long periods most often gave the answer "not interested" as a reason for nonparticipation in ACP.

Lack of interest in forestry as a reason for not consulting foresters was partially associated with the smaller forest tracts. Owners of less than 50 acres were more inclined to cite this reason than were those holding larger acreages.

More farmers than other groups said that they were familiar enough with the principles of forestry to make consultation with foresters unnecessary. Examination of their woodlots did not show evidence to justify this confidence.

The large number of owners who knew of the various forestry assistance programs is evidence of the effectiveness of communicating information about programs to owners. However, the interviewers felt that there was considerable confusion about the details of the programs. To what extent this confusion hinders participation is not known.

Although obstacles to improved forest management are present, the widespread use of home-use products and the equally widespread practice of owner-harvest, coupled with the low farm incomes of the area, seem to provide a situation where the promotion of forest practices could succeed.

SOME RECENT STATION PAPERS
Lake States Forest Experiment Station

Proceedings, Third Lake States Forest Tree Improvement Conference, Sept. 17, 18, 1957. Sta. Paper 58, 87 pp., illus. 1958.

Incidence of White Pine Blister Rust Infection in the Lake States, by D. B. King. Sta. Paper 64, 12 pp., illus. 1958.

Fire Fuels in Red Pine Plantations, by Loyd LaMois, Sta. Paper 68, 19 pp., illus. 1958.

Snow Behavior in Forests of Northern Minnesota and its Management Implications, by Sidney Weitzman and Roger R. Bay. Sta. Paper 69, 18 pp., illus. 1959.

The Forest Insect and Disease Situation, Lake States, 1958, by Gerald W. Anderson and Donald C. Schmiege. Sta. Paper 70, 18 pp., illus. 1959.

Growth of Swamp Conifers Following an Improvement Cut, by D. D. Skilling. Sta. Paper 71, 10 pp., illus. 1959.

Direct Seeding and Planting of Balsam Fir in Northern Wisconsin, by J. H. Stoeckeler and D. D. Skilling. Sta. Paper 72, 22 pp., illus. 1959.

Seed Production Areas in the Lake States: Guidelines for Their Establishment and Management, by Paul O. Rudolf. Sta. Paper 73, 16 pp., illus. 1959.

Forest Tree Improvement Research in the Lake States: A Survey by the Lake States Forest Tree Improvement Committee, by Paul O. Rudolf. Sta. Paper 74, 56 pp. 1959.

Wood Use by Manufacturing Firms in Minneapolis and Saint Paul, by John R. Warner and Carl H. Tubbs. Sta. Paper 75, 30 pp., illus. 1959.

Effects of Forest Cover on Soil Freezing in Northern Lower Michigan, by W. D. Striffler. Sta. Paper 76, 16 pp., illus. 1959.